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EXAMINER

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/534,338
Filing Date: June 03, 2005
Appellant(s): GOEKE, ANDREAS

ANDREW N. PARFOMAK
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 5/18/09 appealing from the Office action mailed 1/7/09.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect.

The amendment after final rejection filed on 3/2/09 has been entered.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is deficient. 37 CFR 41.37(c)(1)(v) requires the summary of claimed subject matter to include: (1) a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number, and to the drawing, if any, by reference characters and (2) for each independent claim involved in the appeal and for each dependent claim argued separately, every means plus function and step plus function as permitted by 35 U.S.C. 112, sixth paragraph, must be identified and the structure, material, or acts described in the specification as corresponding to each claimed function must be set forth with reference to the specification by page and line number, and to the drawing, if any, by

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reference characters. The brief is deficient because the application contains 2 independent claims, specifically claims 1 and 8. Claim 4 depends from claim 1; claim 6 depends from claim 1; claim 7 depends from claim 1.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,387,718	KOHLER et al.	2-1995
EP 1264547 A1	GRAB et al.	12-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

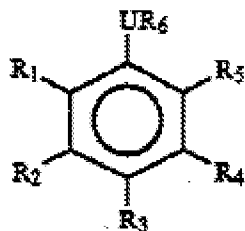
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-4, and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Köhler *et al.* (US 5,387,718).

Regarding claim 1: Köhler *et al.* teaches alkylphenyl alkyl thioethers having the general formula:

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where U represents O or S; and

R_1 - R_6 each independently represent an alkyl or aryl group, but R_1 - R_5 may each independently represent a functional group other than these, including, e.g., but not limited to, $-\text{COOR}$, $-\text{NO}_2$, $-\text{NH}_2$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{OH}$, $-\text{OH}$, $-\text{CHO}$, or -halogen; further

R_1 - R_5 may be bridged by suitable bifunctional substituents, such as, e.g., $-(\text{CH}_2)_x-$, or $-(\text{CH}_2)_x-\text{Z}-(\text{CH}_2)_y-$ (where Z represents a hetero atom; $x=0-7$, and $y=0-7$), or preferably unsaturated substituents such as are characteristic of anellated ring systems, e.g. (but not limited to) naphthyl, phenanthryl, anthracenyl, quinolyl, isoquinolyl, or indolyl.

(1:15-42); wherein U=S,

$R_6=\text{Me}$, $R_3=\text{alkyl}$ having a fused C_{0-7} cycloalkyl ring $R_1=R_2=R_4=R_5=\text{H}$ (2:60-67; 3:6-12; 4:48-46; 6:50-59).

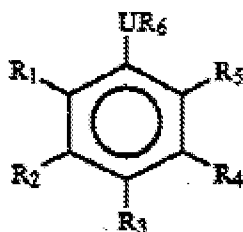
The Office realizes that all the claimed effects or physical properties are not positively stated by the reference. However, the reference teaches all of the claimed reagents. Therefore, the claimed effects and physical properties, i.e. spicy and anisic odor notes, would implicitly be achieved by a composition with all the claimed ingredients. If it is the applicants' position that this would not be the case: (1) evidence would need to be presented to support applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties and effects with only the claimed ingredients.

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Regarding claims 3-4 and 6-7: Köhler *et al.* teaches alkylphenyl alkyl thioethers as fragrances [instant claims 3-4] (5:42-45) and stabilizers for oils used in food and feed [instant claims 6-7] (5:42-45).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Köhler *et al.* (US 5,387,718).

Regarding claim 8: Köhler *et al.* teaches alkylphenyl alkyl thioethers having the general formula:



where U represents O or S; and

R_1 – R_6 each independently represent an alkyl or aryl group, but R_1 – R_5 may each independently represent a functional group other than these, including, e.g., but not limited to, $-\text{COOR}$, $-\text{NO}_2$, $-\text{NH}_2$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{OH}$, $-\text{OH}$, $-\text{CHO}$, or -halogen; further

R_1 – R_5 may be bridged by suitable bifunctional substituents, such as, e.g., $-(\text{CH}_2)_x-$, or $-(\text{CH}_2)_x-\text{Z}-(\text{CH}_2)_y-$ (where Z represents a hetero atom; $x=0-7$, and $y=0-7$), or preferably unsaturated substituents such as are characteristic of anellated ring systems, e.g. (but not limited to) naphthyl, phenanthryl, anthracenyl, quinolyl, isoquinolyl, or indolyl.

(1:15-42); wherein U=S,

$R_6=\text{Me}$, $R_3=\text{alkyl}$ having a fused C_{0-7} cycloalkyl ring $R_1=R_2=R_4=R_5=\text{H}$ (2:60-67; 3:6-12; 4:48-46; 6:50-59).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Köhler *et al.* (US 5,387,718) as applied to claim 4 above, and further in view of Grab *et al.* (EP 1264547).

Regarding claim 5: Köhler *et al.* renders the basic composition obvious [as set forth above with respect to claim 4].

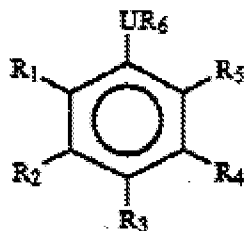
Köhler *et al.* does not teach household product containing alkylphenyl alkyl thioethers. However, Grab *et al.* teaches flavor and fragrance compositions {household products} containing 1-mercapto-1-phenylalkanes which have a natural spicy character (§ 1-2). Köhler *et al.* and Grab *et al.* are analogous art because they are concerned with a similar technical difficulty, namely the preparation of spicy fragrances composed of aryl thioethers. At the time of invention a person of ordinary skill in the art would have found it obvious to have combined household products containing spicy fragrances composed of aryl thioethers, as taught by Grab *et al.* in the invention of Köhler *et al.*, and would have been motivated to do so since Grab *et al.* suggests that such aryl thioethers provide household products with a clear natural spicy character without any attendant dominant roasted note or accompanying pungent and putrid notes (§ 5).

(10) Response to Argument

The rejection of claims 1, 3-4, and 6-8 based upon Köhler *et al.* (US 5,387,718) is maintained for reason of record and the following response.

Köhler *et al.* (US '718) discloses alkylphenyl alkyl thioethers having the general formula:

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where U represents O or S; and

R₁-R₆ each independently represent an alkyl or aryl group, but R₁-R₅ may each independently represent a functional group other than these, including, e.g., but not limited to, —COOR, —NO₂, —NH₂, —O—CH₂—CH₂—OH, —OH, —CHO, or -halogen; further

R₁-R₅ may be bridged by suitable bifunctional substituents, such as, e.g., —(CH₂)_x—, or —(CH₂)_x—Z—(CH₂)_y— (where Z represents a hetero atom; x=0-7, and y=0-7), or preferably unsaturated substituents such as are characteristic of anellated ring systems, e.g. (but not limited to) naphthyl, phenanthryl, anthracenyl, quinolyl, isoquinolyl, or indolyl.

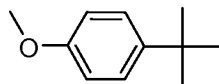
(1:15-42); wherein U=S,

R₆=Me, R₃=C₁₋₆ alkyl having a fused {bridged} C₀₋₇ cycloalkyl ring R₁=R₂=R₄=R₅=H (2:60-67;

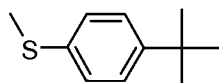
3:6-12; 4:48-46; 6:50-59). Spicy and anisic odor notes would implicitly be achieved from

structures corresponding to instant claim 1.

Köhler *et al.* (US '718) discloses *p*-*tert*-butylphenyl methyl ether Example 1 (5:53-68), which is depicted below.

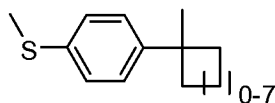


From the general structure (1:15-42) and example 7 (6:48-64), substitution of oxygen with sulfur is disclosed, affording the compound depicted below {R₃ = C₄ alkyl}.

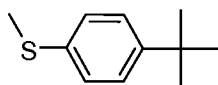


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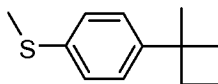
Köhler *et al.* (US '718) discloses the C_{1-6} alkyl groups $\{R_3\}$ may be bridged by suitable bifunctional substituents, such as $-(CH_2)_x-$ with $x = 0-7$ (1:35-38), affording the bridged alkyl structure depicted below.



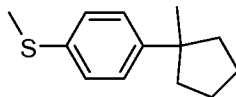
With: $x = 0$;



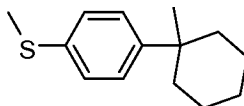
$x = 1$ yields an alkyl group bridged by a methylene $-(CH_2)-$ moiety, resulting in a fused cyclobutyl ring;



$x = 2$ yields an alkyl group bridged by an ethylene $-(CH_2CH_2)-$ moiety, resulting in a fused cyclopentyl ring;



$x = 3$ yields an alkyl group bridged by a propylene $-(CH_2CH_2CH_2)-$ moiety, resulting in a fused cyclohexyl ring;



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etc. The *tert*-butyl moiety was used in the above examples for convenience, but it is noted that $R_3=C_{1-6}$ alkyl (2:40-68), allowing a longer C_{5-6} alkyl moiety to be used in place of the C_4 moiety.

While the preferred embodiments {ex. 1-2 and 4-7} do not specifically depict the structures of instant claims 1 and 8, the general formula discloses such compounds. If one of ordinary skill in the art is able to “at once envisage” the specific compound within the generic chemical formula, the compound is anticipated. One of ordinary skill in the art must be able to draw the structural formula or write the name of each of the compounds included in the generic formula before any of the compounds can be “at once envisaged.” One may look to the preferred embodiments to determine which compounds can be anticipated. *In re Petering*, 301 F.2d 676, 133 USPQ 275 (CCPA 1962). The reference must be considered for all that it discloses and must not be limited to preferred embodiments [see MPEP 2123].

“Köhler *et al.* (US ‘718) discloses alkylphenyl alkyl thioethers {compounds from the general formula} to be used as fragrances (5:42-45). Products of identical chemical composition can not have mutually exclusive properties.” A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990) [see MPEP 2112.01].

In response to appellant’s argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the

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time the claimed invention was made, and does not include knowledge gleaned only from the appellant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The rejection of claim 5 based upon Köhler *et al.* (US 5,387,718) and Grab *et al.* (EP 1264547) is maintained for reason of record on the following response.

The rejection of claim 1 with respect to Köhler *et al.* (US '718) was discussed above. Grab *et al.* (EP '547) was relied on for flavor and fragrance compositions {household products} containing 1-mercapto-1-phenylalkanes which have a natural spicy character (§ 1-2) and such compounds provide household products with a clear natural spicy character without any attendant dominant roasted note or accompanying pungent and putrid notes (§ 5). Therefore, one having skill in the art would employ the compounds disclosed in Köhler *et al.* (US '718) (i.e. compounds having a natural spicy character} in household products, as such compounds having a spicy fragrance provide household products with a clear natural spicy character without any attendant dominant roasted note or accompanying pungent and putrid notes {Grab *et al.* (EP '547) (§ 5)}.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Michael Pepitone/

Examiner, Art Unit 1796

Conferees:

Mark Eashoo

/Mark Eashoo/

Supervisory Patent Examiner, Art Unit 1796

/James J. Seidleck/

Supervisory Patent Examiner, Art Unit 1796